

HIGHER TECHNICAL INSTITUTE

MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

**“HEAT RECOVER OF THE EXHAUST GAS ENERGY OF
VEHICLE ENGINES”**

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**“HEAT RECOVER OF THE EXHAUST GAS ENERGY OF
VEHICLE ENGINES”**

Project report submitted by

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in part satisfaction of the Diploma
of Technician Engineer in Mechanical
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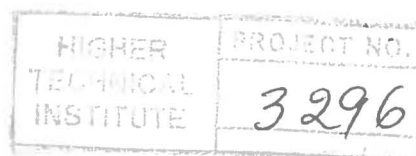
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ABSTRACT

The project deals with the heat losses of the exhausts gases. In the project there are some ideas of how to take advantage of the waste energy of the exhaust and specific produce electricity from their heat with the use of thermoelectric modules

1.1 INTRODUCTION (Heat Recovery)

To discard any resource is undesirable if it is still has a practical use that can be secured with reasonable economy.

As far as heat is concerned, a number of well-established techniques and equipment designs are available to facilitate recovery. Before any form of recovery is contemplated, the necessity for recovery should be challenged. The cost of reducing initial waste by improving thermal efficiency is usually less than the cost of equivalent recovery. There is no purpose in recovery is simple improvement to existing operations can effect similar savings.

The project deals with a design of heat recovery system due to the heat losses of the exhaust gases of a vehicle engine. The design will be based in thermocouples and especially thermoelectric modules.